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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

In The Matter of the Application of SAN DIEGO
GAS & ELECTRIC COMPANY (U 902 E) for a
Certificate of Public Convenience and
Necessity for the South Orange County
Reliability Enhancement Project

Application 12-05-020
(Filed May 18, 2012)

**REPLY COMMENTS OF FOREST RESIDENTS
OPPOSING NEW TRANSMISSION LINES ("FRONTLINES")
ON THE PROPOSED DECISION**

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As we have seen so often in this proceeding, SDGE's Comments on the Proposed Decision rely on snippets of information excised from a larger body of thought which are slapped down and cobbled together as the foundation upon which SDGE attempts to build its arguments. SDGE ignores context and inconvenient truths about the information it presents, so it is no surprise that SDGE's arguments are wobbly and untethered. Page limits prevent FRONTLINES from exposing all of SDGE's erroneous arguments, however major weaknesses are addressed. CAISO's criticisms parallel SDGE's (with one added element addressed later) and have the same intrinsic flaws.

THE PD PROPERLY ASSESSES THE SCOPE AND FEASIBILITY OF THE PROJECT IT APPROVES

CAISO & SDGE criticize the PD for stating "we lack sufficient information to assess the legal hurdles, likely costs, and ultimate feasibility of such an endeavor," and for ordering SDGE to study and assess the requirements/ upgrades needed to implement Trabuco Alternative J (which are the very things that SDGE itself has argued are necessary¹). SDGE claims (wrongly) that this somehow demonstrates that the PD is approving a project and then "assessing its feasibility, cost, scope and environmental impacts". SDGE is incorrect; both CAISO's and SDGE's powerflow studies show Trabuco Alternative J to be "feasible", so the only remaining issue is to determine the most "feasible" configuration, and establish the costs attending this configuration. The PD allows for this determination to proceed. As FRONTLINES **proved**,² SDGE and CAISO demonstrated the feasibility of Trabuco Alternative J :

1. SDGE's analysis of Trabuco Alternative J (SDGE EX 5C Table 2-2) assumes > 500MW SOC load and identifies exceedences on TL13834 (which SDGE admits are easily remedied - SDGE Ex 5C:34 at 21-22) and three events on TL13846C (not NERC violations) remedied by reconductoring ½ mile of line. The remaining scenarios involve "loop" flow that is easily eliminated by disconnecting SOC from Santiago-Trabuco [FRONTLINES' Opening Brief at 2.3.3.1).
2. CAISO's analysis of Trabuco Alternative J [Exhibit 505 Table 1 & Exhibit 436 Table 1] indicates an overload on the single Trabuco transformer which CAISO admits is eliminated by adding a second transformer. All the rest involve "loop flow" that is easily eliminated by disconnecting SOC from Santiago-Trabuco (see FRONTLINES' Opening Brief at 2.3.3.1).

SDGE & CAISO fail to understand this element of the PD because they both ignored what precedes these cited lines, which are prefaced with the comment that there is no urgency to this project, so SDGE & CAISO have the time that they claim is needed to implement Trabuco Alternative J.

SDGE'S INTRODUCTORY REMARKS ARE FRAUGHT WITH SUBSTANTIAL ERROR

On pages 2-3, SDGE's comments on the PD include numerous errors and misinformation, such as

- SDGE wrongly criticizes the FEIR and the PD for not including upgrades to SDGE's 138 kV system and SCE's 230 kV system in Trabuco Alternative J. As FRONTLINES **proved**³ significant upgrades to SDGE's 138 kV system and SCE's 230 kV system are not needed when Trabuco Alternative J is constructed with a second transformer and configured to open up the Trabuco-Santiago line in the event loop flow conditions are detected. *No party disputed this; in fact, FRONTLINES witness was not even cross examined regarding this testimony.*

¹ SDGE Exhibit 4C - Sections 2 & 4 of Chapter 4.

² FRONTLINES Reply Brief page 11.

³ See FRONTLINES' Opening Brief [pages 16-17, 19, 32], and Reply Brief [pages 11-12, 17] and Rebuttal testimony [Exhibit 401C]

- SDGE wrongly states that, by approving Trabuco Alternative J, the PD fails to address “four reliability concerns” in SOC. These “four reliability concerns” pertain to NERC reliability, a redundant power source for SOC, rebuilding Capistrano, and maintenance outage concerns, and all of them were proven by FRONTLINES to be addressed by the Trabuco Alternative⁴. Ironically, SOCREP itself does not meet SDGE’s “four reliability concerns” because it does not provide a fully redundant power source for SOC⁵.
- Perhaps the most astounding criticism that SDGE levels at the PD is that it “asserts risks in the Proposed [SOCRE] Project without discussing the evidence indicating such risks are extremely small”. SDGE seems to be arguing that the risk of an extreme event which could result in load loss under SOCREP is so small that it should be disregarded by the Commission. FRONTLINES points out that the events (fire, earthquake, terrorist) which threaten SOCREP (characterized by SDGE as “extremely small”) are the very same events that threaten SOC today (characterized by SDGE as sufficiently worrisome to warrant a second SOC power source).⁶ SDGE cannot have it both ways; it cannot argue that SOCREP is needed to address the risk of an extraordinary loss of Talega, and then turn around and argue that the risk of an extraordinary loss of Talega (or Capistrano) with SOCREP is so “extremely small” that it should be ignored. Moreover, if we accept SDGE’s argument that the risk posed to SOC load by an event that removes Talega from service under the SOCREP project is so “extremely small” that it should be ignored, then we must similarly conclude that the risk posed to SOC load by an event that removes Talega from service under SOC’s current configuration is also so “extremely small” that a second power source for SOC is not justified. Under this circumstance, the Commission would have to approve FRONTLINES’ Reconductoring Alternative (with the attendant modifications of Talega & Pico), which are **proven** to fully mitigate every one of SDGE’s maintenance and operational reliability concerns beyond a 10 year planning horizon.⁷
- FRONTLINES **proved** that the SDGE-designed 230 kV GIS substation proposed for Capistrano will *easily* fit on the lot identified in the FEIR, and accommodate a breaker and a half configuration, 2 transformers, water quality basins, infrastructure needed to meet industry standards, and abundant room for access⁸. It is absurd for SDGE to suggest that its own substation fails to meet industry standards or is improperly designed. SDGE **cannot** refute the fact that the 230 kV Trabuco substation recommended by FRONTLINES is electrically and technically feasible, so instead SDGE criticizes FRONTLINES witness for not being an Electrical Engineer.
- FRONTLINES **proved** that Trabuco Alternative J does not require significant upgrades to SDGE’s existing 138 kV system to provide redundancy in the event of a Talega Substation outage⁹.
- The “evidence” that SDGE points to in support its argument that operation of Trabuco Alternative J will require 138 kV upgrades assumes loop flow conditions¹⁰ which FRONTLINES **proved** can be avoided by simply disconnecting the Trabuco-Santiago line or opening the Trabuco transformers when loop flow conditions are

⁴ Trabuco Alternative J complies with NERC [FRONTLINES’ Opening Brief (16-17) and Reply Brief (11-12)], it provides SOC with a fully redundant power source [FRONTLINES’ Opening Brief (27-28) and Reply Brief (33-34)], it provides SDGE with a path to address the dilapidated equipment at Capistrano via GO-131, and it fully mitigates all the 57 maintenance load loss scenarios at Talega because it provides a second power source to serve SOC during Talega maintenance, and it mitigates all 80 maintenance load loss scenarios at other SOC substations mitigates by providing a second power source to SOC (though these 80 scenarios can also be addressed by simply reconfiguring the Pico bus [Opening Brief page 39]).

⁵ FRONTLINES’ Opening Brief [38] and Reply Brief [page 8]

⁶ FRONTLINES proved that, with SOCREP, SOC load is threatened by the very same extreme events (fire, earthquake, vandalism) which threaten SOC load today [Opening Brief Section 2.3]. In fact, SOCREP actually poses a higher risk to SOC load, because it provides 2 failure modes that result in significant SOC load loss: the first is the one-third loss of SOC load that occurs when Capistrano is lost, and the second is the entire loss of SOC load that occurs when a catastrophic event (fire, earthquake, etc.) removes Talega and the 230 kV lines adjacent to Talega from service. In fact, FRONTLINES proved that SOCREP introduces even more reliability concerns than what SOC faces today (voltage problems, dropping one-third of SOC load if Capistrano is lost *even if Talega remains operational*, dropping all of SOC load if Talega & adjacent 230 kV lines are lost, etc.). In other words, the threat to SOC load is actually amplified by SOCREP, because SOC load **will be lost** if an extreme event removes either Capistrano **or** Talega from service.

⁷ FRONTLINES Opening Brief sections 2.3 and 2.4.

⁸ FRONTLINES Opening Brief pages 23-25.

⁹ FRONTLINES Opening Brief pages 27-28.

¹⁰ See footnotes 2 and 3 *supra*

detected.¹¹ This configuration eliminates all of SDGE's concerns, and it can be done simply with SPS. Neither SDGE nor CAISO modeled Trabuco Alternative J with SPS to stop loop flow; CAISO said that SPS could not be used because it would not comply with CAISO guidelines, but throughout pages of transcript, CAISO's witness could not identify a single planning standard that was not met by the use of SPS¹².

BOTH THE PROPOSED DECISION AND THE FEIR FULLY COMPLY WITH CEQA.

SDGE claims that CEQA precludes approval of Trabuco Alternative J and that Trabuco Alternative J is not "feasible"; however SDGE's arguments are so specious that it appears SDGE lacks a fundamental understanding of how CEQA works and even what CEQA is. In any event, they are sufficiently poor to merit little consideration.

- SDGE states (with emphasis added) that "there is no substantial evidence in the *CEQA record*" to support the finding that Trabuco Alternative J is "potentially feasible". SDGE seems to think that the Commission maintains a "CEQA record" which stands separate and apart from the decision "record", and that neither informs the other. SDGE fails to grasp that Commission CPCN decisions are based on a *single* evidentiary record that consists of two elements 1) an environmental review conducted pursuant to CEQA & embodied in an FEIR; and 2) the testimony and briefs filed by intervenors. Both of these elements inform the Commission's decision, and jointly comprise the "record". Therefore, and contrary to what SDGE says, the Commission's SOCREP "record" provides abundant evidence that Trabuco Alternative J is "feasible" as that term is contemplated in CEQA.
- The FEIR properly assessed "the whole of the action" of Trabuco Alternative J, because it assumed the installation of 2 transformers at the Trabuco 230 kV substation¹³ and by extension, it considered the impacts associated with installing these 2 transformers. Thus, SDGE is abjectly wrong to accuse the Commission of improper "piece-mealing" in approving Trabuco Alternative J with one transformer and adding another later.
- All of the "work" needed to install a second Trabuco transformer and the impacts of this "work" were fully addressed in the FEIR. Therefore, SDGE wrongly asserts that the PD defers "evaluation of required work".
- SDGE errs substantially in criticizing the FEIR for not evaluating the impacts of upgrades to SDGE's 138 kV system and SCE's 230 kV system as part of Trabuco Alternative J. As explained above, the record clearly demonstrates that Trabuco Alternative J does not require significant 138 kV system upgrades or any SCE 230 kV upgrades, so it would be **pure speculation** for the Commission to assume otherwise. CEQA does not permit the Commission to speculate regarding impacts [CEQA Guidelines 15135], and substantial evidence to support a conclusion that a project will have a significant effect [CEQA Guidelines 15384]. In this case, not only is there no evidence supporting SDGE's contention that significant 138 kV and 230 kV upgrades will occur, *there is actually uncontroverted testimony that such upgrades (and their attendant impacts) they will not occur*. SDGE is wrong to claim that the DEIR should have considered future 138 kV and 230 kV upgrades, because CEQA specifically precludes analysis of elements that are either speculative or not part of a proposed project.
- SDGE errs substantially in criticizing the FEIR for not evaluating impacts of rebuilding the Capistrano substation and in criticizing the PD for not including costs to address existing equipment problems at Capistrano (which are a direct result of SDGE's shameful inattentiveness over the last 30 years). Both the PD and the FEIR recognize that the problems at Capistrano result from the existing (and ancient) Capistrano equipment. These problems are entirely separate and distinct from (and wholly unrelated to), future SOC reliability concerns stemming from future SOC load growth that are at issue in this CPCN Proceeding. Both the PD and the FEIR provide a path to address Capistrano equipment concerns pursuant to General Order 131-D which has an established project review and approval process. FRONTLINES

¹¹ Opening Brief [17-21], Reply Brief [12, 15, 19, 27-28, 36]

¹² Reply Brief 36-37, Comment on Alternative Proposed Decision [Section 5.2]

¹³ FEIR page 3-16 and Figure 3-5.

- Reply Brief pointed out the errors in SDGE's claim that rebuilding Capistrano should be approved as part of any alternative: "Clearly, SDGE aims to "sandbag" all the project alternatives with the impacts associated with rebuilding Capistrano ... Under CEQA, each alternative that is considered (including the "no project" alternative) is burdened only by the impacts that it poses... Therefore, the [cost and] impacts of "rebuilding Capistrano" can be allocated only to those project alternatives (like SOCREP) which depend on a rebuilt Capistrano. They cannot be allocated to project alternatives (like the Trabuco Alternative) which do not require rebuilding Capistrano to meet the Project Objectives." Though SDGE recognizes that "the 1954 Capistrano Substation must be rebuilt to continue providing reliable electric service", SDGE refuses to admit culpability in creating Capistrano's dilapidated state. In any event, Capistrano's state is unrelated to SOC load growth and its attendant reliability concerns and is only relevant to this Proceeding in regards to alternatives (like SOCREP) that rely on a rebuilt Capistrano.

SOCREP PROJECT RISKS ARE NOT OVERSTATED BY THE PROPOSED DECISION

In its comments on the PD, SDGE incorrectly asserts that the PD "overstates" SOCREP risks:

- SDGE's comments **prove** that SOCREP will drop load if Capistrano is lost and can drop load if Talega is lost. Conversely, with Trabuco Alternative J, no load loss occurs if either Trabuco or Talega are lost¹⁴.
- SDGE's assertion that the 230 kV lines which serve Capistrano under the SOCREP "are geographically separated on opposite sides of Talega" is an *object falsehood*.¹⁵
- SDGE believes it unlikely that a fire would remove both Talega and the 230 kV SOCREP lines to Capistrano from service because "the fire would have to be so large as to engulf the substation" ignores the Commission's own finding that a wildfire can travel 300 feet per minute¹⁶. Therefore, "engulfing Talega" is not only possible, it is in fact highly probable.
- SDGE's cavalier attitude that SOCREP is not susceptible to wildfire concerns merely because SDGE "has never experienced the loss of a transmission steel pole or lattice tower due to any kind of fire," is dangerous and contrary to the Commission's own findings that "Lines carried by steel towers are also vulnerable to heat from wildfire... and steel-carried transmission lines are susceptible to physical damage from the heat of a wildfire, and conductor damage is not repairable (conductors must be replaced)."¹⁷

TRABUCO ALTERNATIVE J IS ENTIRELY FEASIBLE

SDGE'S argument that Trabuco Alternative J is "infeasible" is insubstantial and unsupported because:

- It presumes that Trabuco Alternative J will cause "loop flow" and exceed NERC ratings and require mitigation via load shedding and upgrades on the 138 kV system. FRONTLINES has **proven** all of this to be false¹⁸.
- It presumes that a 230 kV "Breaker and a Half" substation will not fit on the site adjacent to the existing Trabuco 138 kV substation. FRONTLINES has **proven** this to be false.¹⁹

¹⁴ Trabuco Alternative J provides SOC with a second fully redundant power source [FRONTLINES' Opening Brief (27-28), Reply Brief (33-34)]

¹⁵ All the SOCREP 230 kV lines to Capistrano are to the west of, and adjacent to Talega source [FRONTLINES' Opening Brief (28-29)]

¹⁶ Section D.15 of Final EIS/EIR certified for the SDGE Sunrise Project [A.06-08-010].

¹⁷ Attachment 1A of Final EIS/EIR certified for the SDGE Sunrise Project [A.06-08-010] – Page A1-1.

¹⁸ See footnotes 2, 3, 4, 9, and 10 *supra*.

¹⁹ FRONTLINES Opening Brief pages 27-28.

- It presumes that Trabuco Alternative J will cause “loop flow” and exceed NERC ratings and require mitigation via load shedding and upgrades on the 138 kV system. FRONTLINES has **proven** all of this to be false¹⁸.
- It presumes that a 230 kV “Breaker and a Half” substation will not fit on the site adjacent to the existing Trabuco 138 kV substation. FRONTLINES has **proven** this to be false.¹⁹
- It presumes that Trabuco Alternative J will require upgrades on the SCE’s system (specifically the Ellis Corridor). FRONTLINES has **proven** this to be false; CAISO is already contemplating upgrades on SCE’s Ellis Corridor and Trabuco Alternative J does not warrant such upgrades any more than SOCREP itself does.²⁰
- It presumes Trabuco 230 kV substation is more costly than SOCREP. FRONTLINES has **proven** this false²¹.

FRONTLINES notes that, in the pages which CAISO and SDGE devote to supporting the contention that Trabuco Alternative J is infeasible (pages 7-16), it hardly mentions substantial and uncontroverted evidence that FRONTLINES placed in the record and which utterly contradicts SDGE’s argument. The few times that CAISO and SDGE do address FRONTLINES’ evidence, they falsely misrepresent it, and ignore key facts²². SDGE’s & CAISO’s argument that Trabuco Alternative J is “infeasible” are weak, unsupported, and contrary to evidence in the record.

CAISO’S ARGUMENTS AGAINST THE PD ARE EITHER UNSUPPORTED OR CONTRARY TO FACT

CAISO generally parrots SDGE’s arguments with the following exceptions:

- CAISO claims repeatedly that the Trabuco Alternative will “significantly reduce transfer capacity on the Southern California high voltage system”, but it never provided a shred of evidence to support this claim. In fact, though ORA examined CAISO Witness Sparks at length on this issue, he could not describe a circumstance where future path flows from SONGS to SCE could even reach 1800 MW (which is far less than the 2400 MW path limit) [TR 322:22 to 329:19].
- CAISO criticizes intervenors efforts to have Trabuco Alternative J properly vetted, calling it “an *ad hoc* review of transmission solutions that are not supported by power flow analysis or subjected to rigorous multi-stakeholder review process, such as the CAISO’s transmission planning process”. Yet (and as discussed above) it is CAISO and SDGE who continually and persistently refused to properly analyze Trabuco Alternative J, and it was CAISO who perpetrated *abject falsehoods* in this proceeding regarding the need for SCE system upgrades and FRONTLINES’ proposed Trabuco Alternative²³. Moreover, many of the SOCREP concerns identified by intervenors in this Proceeding **were** raised during CAISO’S “rigorous multi-stakeholder review process”, but CAISO simply ignored them without reason.²⁴

October 24, 2016

Respectfully Submitted:
/S/ Jacqueline Ayer
 On behalf of FRONTLINES

²⁰ See FRONTLINES’ Opening Brief [32], and Reply Brief [page 17 and footnotes 78 and 79].

²¹ See Frontlines’ Opening Brief [Section 7], Reply Brief [Section 5], and Comments on the Alternative Proposed Decision [Section 7.3]

²² Among other things, SDGE ignores these factual matters raised by FRONTLINES: 1) Every one of the “overloads” that SDGE and CAISO have found with Trabuco Alternative J are either attributed to “loop flow” or easily remedied by minor equipment modifications; 2) simple and feasible measures can be implemented to prevent “loop flow”; 3) CAISO’s own 2013-2014 Transmission Plan (page 96) and 2014-2015 Transmission Plan (page 124) identify existing overload concerns on SCE’s Ellis Corridor *with SOCREP!!!* 4) a 230 kV BAAH GIS substation with 2 transformers and water quality basins and abundant access will fit on the lot adjacent to the exiting Trabuco distribution substation; 5) Simple modifications to Talega and Pico will mitigate and eliminate all of SDGE’s 56 maintenance outage concerns at Talega and 80 maintenance outage concerns on other SOC distribution substations.

²³ See 22 *supra*. Also, see FRONTLINES’ Reply Brief [Section 8.0] and Comments on Alternative Proposed Decision [Sections 5.2 and 6.0].

²⁴ Both UCAN and “Save the Foothills” pointed out many errors in CAISO’s analysis <http://www.caiso.com/2b7d/2b7dc95279c0.pdf>